



PATENT APPLICATION  
Docket No: 14321.72

3663/DFW  
Jmoe

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Masamichi Fujiwara et al.

Serial No.: 10/534,310

Filing Date: May 9, 2005

Confirmation No.: 1071

For: OPTICAL MODULATING DEVICE

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)  
) Art Unit  
) 2872  
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CERTIFICATE OF DEPOSIT UNDER 37 C.F.R. § 1.8

I hereby certify that the following documents are being deposited with the United States Postal Service as First Class Mail, postage prepaid, in an envelope addressed to: Commissioner for Patents, PO Box 1450, Alexandria, Virginia 22313-1450, on the 26<sup>th</sup> day of July 2006.

- Transmittal for Supplemental Information Disclosure Statement (3 pages)
- Supplemental Information Disclosure Statement (3 pages)
- Form PTO-1449 listing 3 references (1 page)
- A copy of 3 Non-US references listed on the Form PTO-1449
- Postcard

Respectfully submitted,

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### TRANSMITTAL FOR SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Transmitted herewith for filing and pursuant to 37 C.F.R. § 1.97 is a Supplemental Information Disclosure Statement, which includes the following statements, if any, required variously by 37 C.F.R. § 1.98:

- ☒ Statement of relevance of selected cited references not in the English language which are not translated.
- ☐ Statement that selected cited references are substantially cumulative of an enclosed or previously submitted reference.
- ☐ Statement that selected cited references were previously cited by or submitted to the United States Patent and Trademark Office in a prior application which is relied upon for an earlier filing date under 35 U.S.C. § 120.

A. Additional Materials Required Due to Content of Information Disclosure Statement

Transmitted are the following documents in addition to the Supplemental Information Disclosure Statement as required variously under 37 C.F.R. § 1.98:

- ☒ Form PTO-1449 listing 3 references submitted for consideration.
- ☒ A copy of 3 Non-US references listed on the Form PTO-1449.
- ☐ English translations of \_\_\_\_\_ ( ) of the references listed on the Form PTO-1449 which are not in the English language.
- ☐ Copies of the following documents from the prosecution of a previous, related application:
  - ☐ Form PTO-1449 AND INFORMATION DISCLOSURE STATEMENT; and
  - ☐ Form PTO-892

B. Additional Materials Required Due to Timing of Filing of Information Disclosure Statement

The transmitted Supplemental Information Disclosure Statement is being filed within one (1) of the following four (4) time periods:

- I. ☒ Prior to the later of either three (3) months following the filing date or the mailing of a first Office Action. Accordingly, no materials other than those listed above are enclosed.
- II. ☐ Following the latter of either three (3) months following the filing date or the mailing of a first Office Action, but before the mailing of a final Office Action or a Notice of Allowance. Accordingly, to secure consideration thereof, one (1) of the following is also enclosed:
  - ☐ Promptness Certification; or
  - ☐ Check No. \_\_\_\_\_ in the amount of \_\_\_\_\_ constituting the submission fee set forth in 37 C.F.R. § 1.17(p).
- III. ☐ After the mailing of a Notice of Allowance, but before payment of the Issue Fee. Accordingly, in order to secure consideration thereof, each of the following are also enclosed:
  - ☐ Promptness Certificate;
  - ☐ Petition for Consideration; and

- \_\_\_ Check No. in the amount of \_\_\_ constituting the petition fee set forth in 37 C.F.R. § 1.17(i)(1).
- IV. \_\_\_ After payment of the Issue Fee. Accordingly, in order to secure consideration thereof, each of the following are also enclosed:
- \_\_\_ Petition to Withdraw from Issue; and
- \_\_\_ Check No. \_\_\_ in the amount of \_\_\_ constituting the petition fee set forth in 37 C.F.R. § 1.17(i)(1).

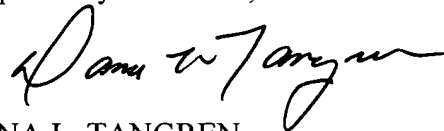
C. Fees

The Commissioner is hereby authorized to charge payment of or any deficiency in the following fees associated with this communication, or to credit any overpayment thereof, to Deposit Account No. 23-3178. A duplicate copy of this letter is enclosed.

- X Any fee required in relation to filing of this letter or any documents transmitted therewith.
- \_\_\_ The submission fee set forth in 37 C.F.R. § 1.17(p) in the event that 37 C.F.R. § 1.97(c) applies and the Examiner is not satisfied that any Promptness Certificate submitted meets the requirements of 37 C.F.R. § 1.97(e).
- \_\_\_ The submission fee set forth in 37 C.F.R. § 1.17(p).
- \_\_\_ The petition fee set forth in 37 C.F.R. § 1.17(i)(1).

Dated this 26<sup>th</sup> day of July 2006.

Respectfully submitted,



DANA L. TANGREN  
Attorney for Applicant  
Registration No. 37,246  
Customer No. 022913  
Telephone No. 801.533.9800



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Serial No.:	10/534,310	)
		) Art Unit
Filing Date:	May 9, 2005	) 2872
		)
Confirmation No.:	1071	)
		)
For:	OPTICAL MODULATING DEVICE	)

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT  
UNDER 37 C.F.R. § 1.97

Commissioner for Patents  
PO Box 1450  
Alexandria, Virginia 22313-1450

Sir:

Please find, pursuant to 37 C.F.R. § 1.98(a)(1), the enclosed Form PTO-1449 which contains a list of all patents, publications, or other items that have come to the attention of one or more of the individuals designated in 37 C.F.R. § 1.56(c). While no representation is made that these references may be "prior art" within the meaning of that term under 35 U.S.C. §§ 102 or 103, the enclosed listed references are disclosed so as to fully comply with the duty of disclosure set forth in 37 C.F.R. § 1.56.

Moreover, while no representation is made that a specific search of office files or patent office records has been conducted or that no better art exists, the undersigned attorney of record believes that the enclosed art is the closest to the claimed invention (taken in its entirety) of which the undersigned is presently aware, and no art which is closer to the claimed invention (taken in its entirety) has been knowingly withheld.

In accordance with 37 C.F.R. §§ 1.97 and 1.98, a copy of each of the listed references or relevant portion thereof that is not a US patent document is also enclosed.

Statement of Relevance of References Listed  
Unaccompanied by English Translation  
Under 37 CFR § 1.98(a)(3)

In accordance with 37 CFR § 1.98(a)(3), the following concise explanation of the relevance of each listed reference that is not in the English language and unaccompanied by a translation into English is provided.

Japanese Patent No. 10-173597: PROBLEM TO BE SOLVED: To optionally adjust a gain for arbitrary wavelength over a wide wavelength range by dividing a light signal into respective signal lights, adjusting each signal light to a desired gain, and then putting respective adjusted signal lights together and outputting them as a new light signal. SOLUTION: A wavelength-multiplexed light signal which is transmitted through a transmission line 50 is inputted to a 1st port 201 that an optical circulator 20 has and outputted to a 2nd port 202. This light signal is inputted to one port 310 that a WDM coupler 30 has, demultiplexed into signal lights by wavelengths, and outputted to 1st to 4th ports 321 to 324 that the WDM coupler 30 has. Further, the light signals outputted from those ports are reflected by 1st to 4th light reflecting means 41 to 44, inputted to the 1st ports 321 to 324 again, and optically multiplexed and outputted from the one port 310 to a 2nd port 202, so that it is outputted from a 3rd port 203 to a transmission line 60.

Japanese Patent No. 11-046030: PROBLEM TO BE SOLVED: To provide an optical relaying and amplifying apparatus and optical level regulator, which can remove noise by spontaneously emitted light beam and can regulate optical level which differs to a large extent for each wavelength. SOLUTION: A waveform-multiplexed input optical signal from an optical transmission path 101 is amplified by an optical amplifier 110, and this amplified output is then branched to individual wavelengths by an optical branching circuit 120. The branched four optical signals are transmitted to the optical transmission paths 131 to 134 and thereafter combined by an optical combining circuit 140 which are connected to the end terminal of the optical transmission paths 131 to 134, and this optical signal is then output to the optical transmission path 102 as the waveform multiplex signal. The optical branching circuit 120 functions as a filter to output only the branched wavelength and eliminate noise by the spontaneously emitted beam of the optical amplifier 110.

Japanese Patent No. 2003-069502: PROBLEM TO BE SOLVED: To demultiplex multiple wavelength light having bandwidths more than the free spectral range (FSR) of an arrayed-waveguide grating (AWG) into individual wavelength channels, and suppress power level deviation between each wavelength channels. SOLUTION: A demultiplexer is constituted of a group demultiplexer 31 which demultiplexes the multiple wavelength light into wavelength groups each having a plurality of wavelength channels, and a plurality of channel demultiplexers 32-1 through 32-m which demultiplex each wavelength group into light containing a plurality of wavelength channels. A multiplexer is constituted of a plurality of channel multiplexers 34-1 through 34-m which multiplex modulation signal light of each wavelength channel on a wavelength group-by-group basis, and a group multiplexer 35 which multiplexes the wavelength-multiplexed signal light in each wavelength group output from each channel multiplexer. The FSR of the group multiplexer/demultiplexer is set more than the bandwidth of the multiple wavelength light. As a channel multiplexer/ demultiplexer, there is employed an AWG of which FSR is approximately full

width at half maximum (FWHM) of transmission characteristic of each port in the group multiplexer/demultiplexer.

Dated this 26<sup>th</sup> day of July 2006.

Respectfully submitted,

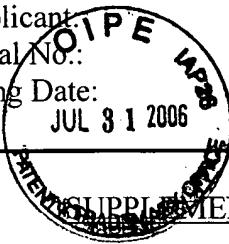
A handwritten signature in black ink, appearing to read "Dana L. Tangren", with a long horizontal flourish extending to the right.

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 Art Unit: 2872



# SUPPLEMENTAL INFORMATION DISCLOSURE CITATIONS MADE BY APPLICANT

## U.S. Patent Documents

<u>Examiner</u> <u>Initial*</u>	<u>Document</u> <u>Number</u>	<u>Issue</u> <u>Date</u>	<u>Name</u>
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## Foreign Patent Documents

<u>Examiner</u> <u>Initial*</u>	<u>Document</u> <u>Number</u>	<u>Publication</u> <u>Date</u>	<u>Country or</u> <u>Patent Office</u>	<u>Translation</u>
_____ 1	10-173597	06/26/1998	Japan	No
_____ 2	11-046030	02/16/1999	Japan	No
_____ 3	2003-069502	03/07/2003	Japan	No

## Other Documents

(including author, title, pertinent pages, etc.)

Examiner  
Initial\*

## **References Cited by Applicants**

While the filing of Information Disclosure Statements is voluntary, the procedure is governed by the guidelines of Section 609 of the Manual of Patent Examining Procedure and 37 C.F.R. §§ 1.97 and 1.98. To be considered a proper Information Disclosure Statement, Form PTO-1449 shall be accompanied by a copy of each listed patent or publication or other item of information and a translation of the pertinent portions of foreign documents (if an existing translation is readily available to the applicant), an explanation of relevance of each reference not in the English language, and should be submitted in a timely manner as set out in MPEP Sec. 609.

Examiners will consider all citations submitted in conformance with 37 C.F.R. § 1.98 and MPEP Sec. 609 and place their initials adjacent the citations in the spaces provided on this form. Examiners will also initial citations not in conformance with the guidelines which may have been considered. A reference may be considered by the Examiner for any reason whether or not the citation is in full conformance with the guidelines. A line will be drawn through a citation if it is not in conformance with the guidelines AND has not been considered. A copy of the submitted form, as reviewed by the Examiner, will be returned to the applicant with the next communication. The original of the form will be entered into the application file.

Each citation initialed by the Examiner will be printed on the issued patent in the same manner as references cited by the Examiner on Form PTO-892.

The reference designations "A1," "A2," etc. (referring to Applicant's reference 1, Applicant's reference 2, etc.) will be used by the Examiner in the same manner as Examiner's reference designations "A," "B," "C," etc. on Office Action Form PTO-1142.

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Examiner:

Date Considered:

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609, draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.